

## February 2016 Climate Review for Puerto Rico and U.S. Virgin Islands.

**Synopsis:** *Wet across the southern and western areas of PR with a 75 to 100 percent of normal rainfall elsewhere. Normal to above normal across the U.S. Virgin Islands. Warm to hot temperatures prevailed across the area. Rainfall likely to be normal to above normal during Mar-Apr-May and Jun-Jul-Aug.*

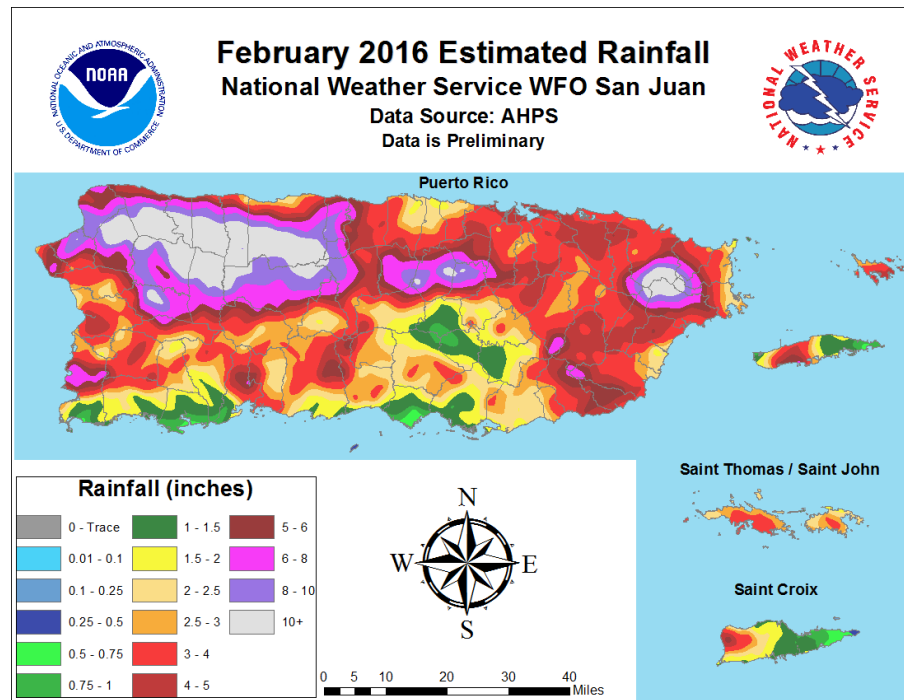
### Summary

A seasonable weather pattern prevailed across the local islands during February with trade wind showers observed from time to time. These showers were enhanced sporadically by favorable upper level dynamics. Heavy rain at times led to a notable reduction in drought intensity and coverage across Puerto Rico. Rain tallied 2 to locally more than 6 inches, raising the 3-month precipitation to above average across the western half of the island as well as the island's eastern tier. Puerto Rico's lingering drier-than-normal conditions are now mostly confined to areas from San Juan to the southern coastline, where local streamflows remain below the 10th percentile.

Based on the Cooperative Observer Network Data (COOP), a 126 % of the normal rainfall was observed across PR. Preliminarily, an average rainfall total of 3.27 inches was measured, which is 0.67 inches above normal (Table 1). Across St. Thomas/St. John and St. Croix, an average rainfall total of 1.53 and 2.82 inches was observed. This is 0.18 inches below normal at St. Thomas/St. John and 1.21 inches above normal at St. Croix (Table 1). In terms of temperature, the mean temperature for PR was 75.6°F, which is approximately 2.3°F warmer than the 30-year average from the National Centers for Environmental Information (NCEI).

At the primary climatological data sites, a rainfall total of 1.47 and 1.43 inches was observed at Henry E. Rohlsen Airport in Saint Croix (TISX) and Cyril E King Airport in St Thomas (TIST); this is 0.18 inches below the normal rainfall at TISX but normal at TIST. In

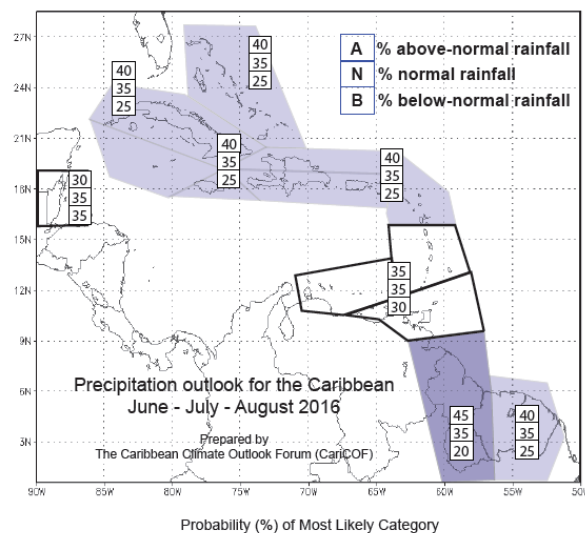
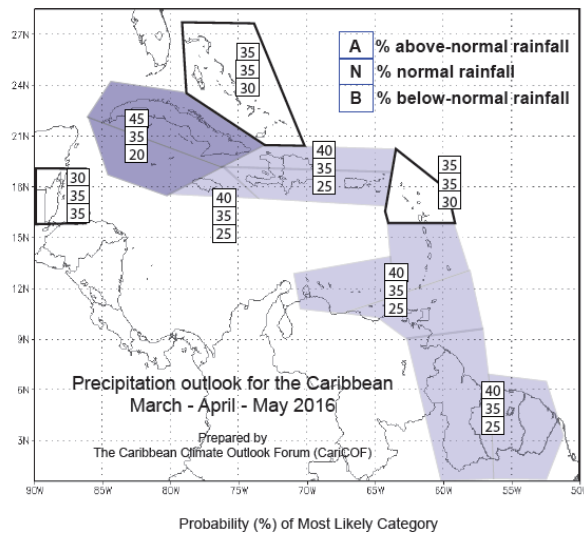
terms of temperature, the mean temperature at TISX and TIST was 79.2 and 78.9°F, which is 1.0°F above normal at TISX. Across the San Juan Area, February 2016 ended as the 7<sup>th</sup> warmest February on record in nearly 117 years of record.



**Figure 1. Rainfall Totals based on AHPS**

## Looking Ahead

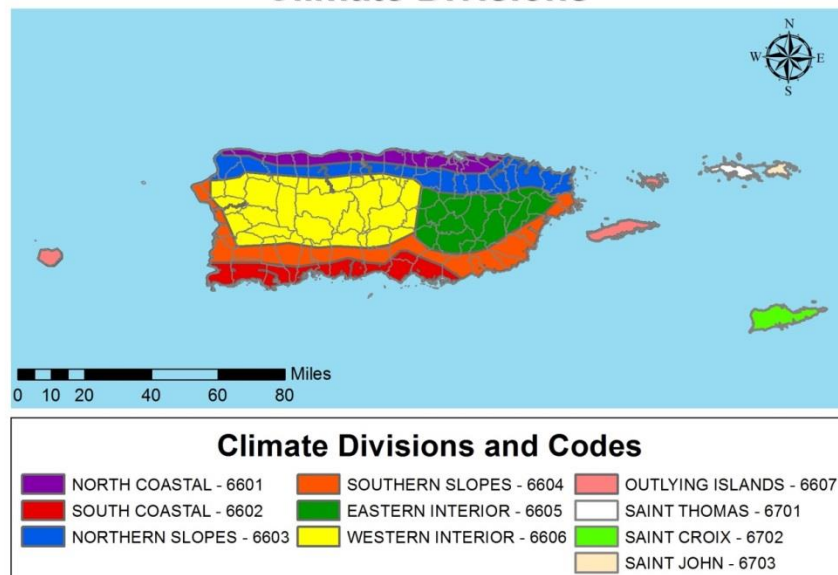
Most models suggest a strong El Niño lasting into the NH spring of 2016, with an estimated overall confidence of at least 99% for FMA, but quickly weakening and fading away, with only 30-40% probability for remaining in El Niño by JJA. Similarly, SSTs have been and are still above average north of the Caribbean Islands. Warm SSTs north and east of the islands may lead to above-average air moisture for MAM and JJA in the north of the Caribbean. Therefore there is a higher chance for normal to above normal rainfall across Puerto Rico and the U.S. Virgin Islands.



More Info: <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

## Average Rainfall Accumulation per climate zones based on COOP

### Puerto Rico and U.S. Virgin Islands Climate Divisions



	North Coastal	South Coastal	Northern Slopes	Southern Slopes	Eastern Interior	Western Interior	All PR	St Thomas / St John	St Croix
Observed (February)	2.52	1.95	2.24	1.77	3.93	5.36	3.27	1.53	2.82
Normal (February)	2.96	1.45	3.03	1.86	3.92	2.36	2.60	1.71	1.61
% PON (February)	85	134	74	95	100	227	126	89	175
Accumulated YTD	4.52	3.95	4.24	4.77	7.93	7.36	5.27	2.61	4.68
Normal accumulation YTD	7.02	3.07	7.23	3.86	8.61	5.77	5.93	4.43	3.61
% PON accumulated YTD	64	129	59	124	92	128	89	59	130

Table 1. February 2016 and Year to date (YTD) Rainfall (inches). Percent of Normal (PON).

## Historical Rainfall and Temperature

	Puerto Rico		San Juan Area		IST		ISX	
1	1983	0.69"	1941	0.05"	1987	0.42"	2005	0.11"
2	1941	0.92"	1902	0.09"	1993	0.47"	1983	0.18"
3	1977	0.96"	1983	0.20"	2010	0.52"	1986	0.30"

Table 2. Driest Februarys

	Puerto Rico		San Juan Area		IST		ISX	
1	1950	7.63	1950	7.90	2015	13.35	1995	4.23
2	1954	5.43	1918	7.84	1954	3.96	1988	3.59
3	1995	4.90	1954	7.34	1956	3.79	1956	3.54

Table 3. Wettest Februarys

	Puerto Rico**		San Juan Area		IST		ISX	
1	2010	75.9	2010	80.0	1994	81.2	1994	80.2
2	2015	75.1	1983	79.9	1995	80.9	1998	79.9
3	1947	75.1	2014	79.3	1993	80.5	1988	79.5

Table 4. Warmest Februarys

	Puerto Rico**		San Juan Area		IST		ISX	
1	1941	66.2	1951	73.3	1956	75.8	2012	74.8
2	1940	67.5	1917	73.3	1999	76.2	1956	76.0
3	1943	68.0	1925	73.4	1955	76.2	1999	76.4

Table 5. Coolest Februarys

	Puerto Rico	San Juan Area	IST	ISX
Temperature	73.3 °F	77.9 °F	78.8 °F	78.2 °F
Rainfall	2.66"	2.39"	1.43"	1.65"

Table 6. Normal Values for February

## Monthly and Seasonal Highlights for Primary Climatological Data Sites.

	Dec (2015)	Jan	Feb	Season	Year to Date
San Juan Area	5 <sup>th</sup> warmest (80.0 °F)	5 <sup>th</sup> warmest (78.7 °F) and 9 <sup>th</sup> driest (1.60")	7 <sup>th</sup> warmest (78.9 °F)	4 <sup>th</sup> warmest (79.2 °F)	6 <sup>th</sup> warmest start to a year with an avg. temp. of 78.8 °F.
IST	7 <sup>th</sup> warmest (80.2 °F)	---	---		8 <sup>th</sup> warmest start to a year with an avg. temp. of 79.0 °F.
ISX	4 <sup>th</sup> warmest (80.3 °F)	8 <sup>th</sup> warmest (78.8 °F) and 2 <sup>nd</sup> driest (0.50")	5 <sup>th</sup> warmest (79.2 °F)	11 <sup>th</sup> driest (4.41") 2 <sup>nd</sup> warmest (79.4 °F)	7 <sup>th</sup> driest start to a year (2.02") and 5 <sup>th</sup> warmest start to a year with an avg. temp. of 79.0 °F.

Table 7. Winter 2015-2016

## Additional Highlights Based on COOP Data

### Wettest Days

Station	Inches (inches)	Date
CHRISTIANSTED FT	2.66	2/22/2016
MARICAO FISH HATCHERY	2.35	2/15/2016
LAJAS SUBSTATION	2.15	2/14/2016

### Highest Maximum Temperatures

Station	Temperature (°F)	Date
AGUIRRE	92	2/22/2016
TOA BAJA LEVITOWN	91	2/25/2016
WFO SAN JUAN	91	2/6/2016

### Lowest Minimum Temperatures

Station	Temperature (°F)	Date
MARICAO 2 SSW	57	2/5/2016
AIBONITO	61	2/4/2016
ARECIBO OBSY	61	2/27/2016

Data is preliminary and has not undergone final quality control by the National Centers for Environmental Information / NCEI/. Therefore, this data is subject to revision. Report based on data received until March 4<sup>th</sup> 2016.

*Puerto Rico Climate Record Period: 1940 to 2016*

*San Juan Metro Area Climate Record Period: 1898 to 2016 (Primary climatological site)*

*Cyril E. King Airport/St Thomas Climate Record Period: 1953 to 2016 (Primary climatological site)*

*Henry E. Rohlsen Airport/St Croix Climate Record Period: 1951 to 2016 (Primary climatological site)*